1. Convert the following from decimal to binary
   1. 5
   2. 110
   3. 35
   4. 400
   5. 20
2. Convert the following from binary to decimal
   1. 10 1101
   2. 1 1111 0100
   3. 100 0100
   4. 1 0000 0000
   5. 1010
3. Find the sum of the following binary number
   1. 0010 1101 + 0001
   2. 1010 + 1111
   3. 10 0100 + 01 1110
4. Subtract the following binary numbers
   1. 1010 – 0101
   2. 10 0100 – 01 1001
   3. 1 1001 0000 – 0 1100 1000
5. Evaluate the following expressions
   1. 5 & 6
   2. 10 & 15
   3. 1 |2
   4. ~256
   5. 10 ^ 5
   6. 10 << 3
   7. 5 >> 1
6. Solve the following
   1. <7,3> + <10,2>
   2. <1,1> + <0,1>
   3. <-4, 4, 4> + <2, 2, 2>
   4. <10, 1, -11> - <4,5,2>
   5. <9, 2> - <5, 3>
7. What is the magnitude of the following Vectors?
   1. <1, 1>
   2. <45, 4, 6>
8. Normalize the following
   1. <-120, -30, 138>
9. Find the dot product of the following
   1. <4,27> Dot <8,9>
   2. <11,3> Dot <9,9>
10. Find the cross product for the following
    1. <10,4,10> X <3,15,8>